



State of Utah

Department of
Environmental Quality

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DIVISION OF AIR QUALITY
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Lieutenant Governor

10354

Title V Operating Permit

PERMIT NUMBER: 3500063001

DATE OF PERMIT: December 3, 2002

Date of Last Revision: March 5, 2008

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

University of Utah
200 South University Ave
Salt Lake City, UT 84112

Permitted Location:

University of Utah
200 South University Ave
Salt Lake City, UT 84112

UTM coordinates: 429440 m Easting, 4512800 m Northing
SIC code: 8221 (Colleges, Universities, & Professional Schools)

UTAH AIR QUALITY BOARD

By:

M. Cheryl Heying, Executive Secretary

Prepared By:

Robert Grandy

ENFORCEABLE DATES AND TIMELINES

The following dates or timeframes are referenced in
Section I: General Provisions of this permit.

Annual Certification Due: December 3, and on that date of every calendar year that this permit is in force.

Renewal application due: June 3, 2007

Permit expiration date: December 3, 2007

Definition of “prompt”: written notification within 14 days.

ABSTRACT

Emissions from the University of Utah are primarily due to the operation of: boilers, comfort heating equipment, and emergency generators. Large boilers located throughout the campus are covered by New Source Performance Standard (NSPS) found in 40 CFR part 60 Subpart Dc. Three large boilers located in Building 303 predate 40 CFR part 60 Subpart Dc. A cogeneration unit located in Building 303 is subject to 40 CFR, Part 60, Subpart KKKK . The University of Utah is a major source of carbon monoxide (CO) and oxides of nitrogen (NO_x).

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V administrative amendment - enhanced AO (Project #OPP0103540008)	3/5/2008	<p>The changes from the previous AO DAQE-AN0354014-07 to the new AO DAQE-AN0103540016-07, are:</p> <ol style="list-style-type: none"> 1. Add two natural gas fired boilers (Building 587) rated at up to 13.501 MMBtu/hr, each. 2. Add one natural gas fired boiler (Building 853) (Health Profession Education), rated at up to 8.369 MMBtu/hr. 3. Add one natural gas boiler (Building 523 Moran Eye Center), rated at up to 8.165 MMBtu/hr. 4. Add one natural gas boiler (Building 33 Rice Eccles Stadium), rated at up to 5.25 MMBtu/hr. 5. Add one diesel fired emergency backup generator (Building 1-Park Building), rated at 896 hp (668 kW). 6. Replaced two dual fueled boilers (natural gas and coal Boilers #1 and #2, at Building 303 High Temperature Water Plant (HTWP)) with one natural gas fired turbine (Solar's SoLoNox TM) with waste heat recovery unit (WHRU) coupled with a supplementary natural gas fired duct burner. Electrical power generated by cogeneration unit will be only used by U of U facilities. However, if in the future U of U supplies more than one third of the gas turbine potential electrical output capacity to any power distribution system for sale, the gas turbine will be considered as utility unit. 7. Removed references associated with coal use since the coal handling systems have been dismantled. 8. After the cogeneration unit becomes operational stack testing for High Temperature Water Plant boilers #3-#5 will not be required due to their limited use as backup units to the cogeneration unit. 9. Add Carpentry Shop Dust Collector in Building 350. 10. Add two diesel fired emergency backup generators, each rated at 1000 kW, for Building 526 (Hospital Central Plant). 11. Add one diesel fired emergency backup generator rated at 150 kW for Buildings 701 and 702 (Medical Towers).

		<p>12. Add one diesel fired emergency generator in Bldg 12 (Sutton Building) rated 670 bhp,</p> <p>13. Add one small ethylene oxide sterilization unit with less than 1 ton of ethylene consumption,</p> <p>14. Changed natural gas fired emergency backup generators combined total from 620 kW to 300 kW, AO Condition 8.D</p> <p>Deletions:</p> <p>15. Changed 10 percent opacity limit to 20 percent for diesel fired emergency generators for Rice-Eccles Stadium and Student Housing; AO Conditions 39 and 40. 10 percent was inadvertently put instead of 20 opacity limit.</p> <p>16. Removed one diesel fired emergency backup generator in Building 63 rated at 47 hp (35 kW).</p> <p>17. Removed listing of miscellaneous boilers with heat rating up to 5 MMBtu/hr.</p> <p>18. Removed hourly limits for all emergency generators for maintenance operations. Limit for the emergency use for electricity production only during periods when electric power from the utilities is interrupted, remains.</p>
Title V administrative amendment by source	12/17/2006	Various changes made as noted in the Engineering Review comments at the end of this modified permit.
Title V administrative amendment by source (Project #OPP0103540004)	10/26/2006	Changes: Various changes made as noted in the Engineering Review comments at the end of this modified permit.
Title V administrative amendment by source (Project #OPP0103540003)	9/17/2006	Changes: Addition of nine emergency back-up generators.
Title V administrative amendment by source (Project #OPP0103540002)	1/10/2005	Changes: Consolidation of Approval Orders, removal of redundant conditions, addition of new equipment, addition of facilities newly under University control, deletion of facilities no longer under University control, and to update requirements. Further details are included in the review comments at the end of this permit.
Title V initial application (Project #OPP0103540001)	12/3/2002	

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Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

SECTION I: GENERAL PROVISIONS

I.A

Federal Enforcement.

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B

Permitted Activity(ies).

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C

Duty to Comply.

- I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))
- I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))
- I.C.3 The permittee shall furnish to the Executive Secretary, within a reasonable time, any information that the Executive Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Executive Secretary copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))
- I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated

noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D

Permit Expiration and Renewal.

I.D.1 This permit is issued for a fixed term of five years and expires on the date shown under "Enforceable Dates and Timelines" at the front of this permit. (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due on or before the date shown under "Enforceable Dates and Timelines" at the front of this permit. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E

Application Shield.

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Executive Secretary takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Executive Secretary any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F

Severability.

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G

Permit Fee.

I.G.1 The permittee shall pay an annual emission fee to the Executive Secretary consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H

No Property Rights.

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I

Revision Exception.

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

I.J

Inspection and Entry.

- I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Executive Secretary or an authorized representative to perform any of the following:
 - I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))
 - I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))
 - I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))
 - I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))
- I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K

Certification.

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

I.L

Compliance Certification.

- I.L.1 Permittee shall submit to the Executive Secretary an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than the date shown under "Enforceable Dates and Timelines" at the front of this permit, and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))
 - I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;

- I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;
- I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and
- I.L.1.d Such other facts as the Executive Secretary may require to determine the compliance status.
- I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Executive Secretary:
(R307-415-6c(5)(d))

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

I.M

Permit Shield.

- I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:
- I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or
(R307-415-6f(1)(a))
- I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))
- I.M.2 Nothing in this permit shall alter or affect any of the following:
- I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))
- I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))
- I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))

I.M.2.d The ability of the Executive Secretary to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N

Emergency Provision.

I.N.1 An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))

I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))

I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))

I.N.2.d The permittee submitted notice of the emergency to the Executive Secretary within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))

I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))

I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))

I.O

Operational Flexibility.

Operational flexibility is governed by R307-415-7d(1).

I.P

Off-permit Changes.

Off-permit changes are governed by R307-415-7d(2).

I.Q

Administrative Permit Amendments.

Administrative permit amendments are governed by R307-415-7e.

I.R

Permit Modifications.

Permit modifications are governed by R307-415-7f.

I.S

Records and Reporting.

I.S.1

Records.

I.S.1.a

The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))

I.S.1.b

For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))

The date, place as defined in this permit, and time of sampling or measurement.

I.S.1.b.1

The date analyses were performed.

I.S.1.b.2

The company or entity that performed the analyses.

I.S.1.b.3

The analytical techniques or methods used.

I.S.1.b.4

The results of such analyses.

I.S.1.b.5

The operating conditions as existing at the time of sampling or measurement.

I.S.1.b.6

I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.

I.S.2

Reports.

I.S.2.a

Monitoring reports shall be submitted to the Executive Secretary every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))

I.S.2.b

All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i))

I.S.2.c

The Executive Secretary shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Prompt, as used in this condition, shall be defined as written notification within the number of days shown under "Enforceable Dates and Timelines" at the front of this permit.

Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))

I.S.3 Notification Addresses.

- I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000

- I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Executive Secretary:

For annual compliance certifications:

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

For reports, notifications, or other correspondence related to permit modifications, applications, etc.:

Environmental Protection Agency, Region VIII
Office of Partnerships & Regulatory Assistance Air & Radiation Program (mail code 8P-AR)
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6440

I.T

Reopening for Cause.

- I.T.1 A permit shall be reopened and revised under any of the following circumstances:

- I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

- I.T.1.b The Executive Secretary or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

- I.T.1.c EPA or the Executive Secretary determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))
- I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))
- I.T.2 Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the Acid Rain Program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into this permit. (R307-415-7g(1)(b))
- I.T.3 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

I.U

Inventory Requirements.

An emission inventory shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

I.V

Title IV and Other, More Stringent Requirements

Where an applicable requirement is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, Acid Deposition Control, both provisions shall be incorporated into this permit. (R307-415-6a(1)(b)).

SECTION II: SPECIAL PROVISIONS

- II.A **Emission Unit(s) Permitted to Discharge Air Contaminants.**
(R307-415-4(3)(a) and R307-415-4(4))
- II.A.1 **Permitted source**
(Source-wide)
- II.A.2 **Misc. Parts Washers (subject to R307-335-2)**
Miscellaneous parts washers located on campus using VOC containing solvents and subject to R307-335-2. Does not include parts washers using citrus based solvents.
- II.A.3 **Building 303-High Temperature Water Plant**
Includes the High Temperature Water Plant pre NSPS Boilers, and High Temperature Water Plant Cogeneration Unit.
- II.A.4 **High Temperature Water Plant pre NSPS Boilers**
Three pre-NSPS boilers located in Building 303 that use natural gas only. Boilers 3-5 are rated at up to 105 MMBtu/hr, each. (Boilers 1-2 were at up to 69 MMBtu/hr, each. They have been removed).
- II.A.5 **High Temperature Water Plant Cogeneration Unit**
One (1) natural gas fired Solar Taurus 70 T7800S (Solar's SoLoNox TM) turbine with one (1) WHRU with duct burner rated at 85 MMBtu/hr located in building 303. Natural gas turbine is site rated at 7.23 MW with heat input of 72.78 MMBtu/hr at 0 degrees F and 50% relative humidity. Cogeneration unit Stack height is 55 feet with 4.5 feet diameter. Gas turbine and duct burner are Subject to NSPS, 40 CFR, Part 60, Subpart KKKK. Located in Building 303.
- II.A.6 **University Hospital Boilers**
Three pre-NSPS natural gas/diesel fired boilers supporting the University Hospital. Two boilers rated at up to 10.5 MMBtu/hr located in Building 521/525. One boiler rated up to 13.5 MMBtu/hr located in Building 526.
- II.A.7 **Miscellaneous Natural Gas Fired Generators**
Miscellaneous natural gas fired emergency generators with a total combined rating of 300 kW. Currently installed natural gas-fired generators are located at Buildings 685, 606, 500, 350, 67, 64, and 11.
- II.A.8 **Diesel-Generators**
Emergency diesel generators with combined capacity of up to 13,985 kW supporting the following buildings: 4, 7, 13, 14, 19, 28, 35, 49, 57, 64, 66, 82, 84, 85/87, 95, 205, 210, 213, 301, 303, 305, 347, 500, 521/525/526, 533, 540, 570, 585, 587, 697, and 853.
- II.A.9 **Building 302 NSPS Boilers**
Three NSPS boilers (40 CFR, Part 60 Subpart Dc) located in Building 302. Boilers all have 15% flue gas recirculation, and are fired on natural gas and diesel as a backup fuel. Rating for each boiler is up to 87.5 MMBtu/hr.
- II.A.10 **Building 302 Diesel Emergency Generator**
One diesel fired emergency generator located at Building 302 with a rating of up to 800 kW.
- II.A.11 **Student Housing/Rice-Eccles Stadium NG Fired Equip**
Includes all natural gas fired equipment located in buildings 802-804, 806, 807, 810-815, 820-822, 825-830 in student housing; and Rice-Eccles Stadium complex, buildings 32 & 33.

- II.A.12 **Rice-Eccles Stadium (Building 32) West NSPS Boiler**
Natural gas fired boiler rated at up to 14.7 MMBtu/hr. Subject to NSPS, 40 CFR, Part 60, Subpart Dc.
- II.A.13 **Rice-Eccles Statdium (Bldg 33) Small Boiler**
Natural gas fired boiler rated at 5.25 MMBtu/hr located in building 33-Clark Football Center.
- II.A.14 **Rice-Eccles Stadium Emergency Diesel Generator**
One diesel fired emergency generator rated at up to 900 kW (1337 bhp). Located in Building 32.
- II.A.15 **Student Housing Emergency Diesel Generators**
Three diesel fired emergency generators identified as follows: Building 800/801 (University Guesthouse), rated up to 66 kW (68 bhp); Building 815 (Chase N. Peterson Heritage Center), rated up to 66 kW (68 bhp); Buildings 821/822 (Benchmark Plaza 821 and 822), rated up to 208 kW (317 bhp).
- II.A.16 **Paint Booth and Print Plant Combined**
Includes the paint booth located in Building 350 and equipment located in the printing plant, also located in Building 350.
- II.A.17 **Print Plant**
Printing operations including letter and offset presses.
- II.A.18 **Paint Booth**
Painting operation is used primarily for refinishing wood furniture. Equipped with particulate filters.
- II.A.19 **Building 555 - Huntsman Cancer Institute**
Includes two NSPS Boilers (rated at up to 16.8 MMBtu/hr each), two small boilers (up to 5 MMBtu/hr each), and two diesel emergency generators (rated at up to 2,000 kW and 750 kW).
- II.A.20 **Huntsman Cancer Institute - NSPS Boilers**
Two natural gas/diesel fired boilers, each rated at up to 16.8 MMBtu/hr. Subject to NSPS, 40 CFR, Part 60, Subpart Dc.
- II.A.21 **Huntsman Cancer Institute - Small Boilers**
Two small natural gas/diesel fired boilers, each rated at up to 5 MMBtu/hr. Located in Building 555.
- II.A.22 **Huntsman Cancer Institute -Diesel Emerg Generators**
Two diesel-fired emergency generators rated at up to 750 kW and 2,000 kW.
- II.A.23 **Building 556 - Huntsman Cancer Hospital**
Includes Huntsman Cancer Hospital: Small Boilers 1-2, and Huntsman Cancer Hospital: Emergency Diesel Generators.
- II.A.24 **Huntsman Cancer Hospital: Small Boilers 1-2**
Two boilers with heat input ratings of up to 6 MMBtu each, fired on either natural gas or fuel oil.
- II.A.25 **Huntsman Cancer Hospital: Emerg Diesel Generators**
Two diesel fired emergency generators with ratings of up to 1,500 kW each.
- II.A.26 **Bldg 565-Emma Eccles Jones Medical Research Center**
Includes building 565 NSPS Boiler, and building 565 Emergency Diesel Generator.

- II.A.27 **Building 565 Emma-Eccles-Jones Med Res NSPS Boiler**
One boiler with input rating of up to 19 MMBtu, fired on natural gas. Located in building 565.
- II.A.28 **Bldg 565 Emma-Eccles-Jones Med Res Diesel Gen.**
One diesel fired emergency generator rated up to 1,000 kW. Located in building 565.
- II.A.29 **Building 550 - Clinical Neurosciences Center**
Includes Building 550 (Clinical Neurosciences Center) Emergency Diesel Generator, and Building 550 (Clinical Neurosciences Center) Out of Service Boiler.
- II.A.30 **Bldg 550-Clinical Neurosciences: Emerg Generator**
One diesel fired emergency generator rated at up to 500 kW. Located outside Building 550.
- II.A.31 **Bldg 550 - Neurosciences: Out of Service Boiler**
A boiler listed for identification purposes that is on-site but out of service.
- II.A.32 **Building 523 - John A. Moran Eye Center**
Includes John A. Moran Eye Center- Emergency Diesel Generators, John A. Moran Eye Center- Natural Gas Fired Small Boiler
- II.A.33 **John A. Moran Eye Center: Diesel Generators**
Two diesel fired emergency generators rated up to 400 kW and up to 1250 kW. Located in building 523.
- II.A.34 **John A. Moran Eye Center: NG Fired Small Boiler**
One natural gas fired boiler rated at up to 8.165 MMBtu/hr. Located in building 523.
- II.A.35 **Building 575 -Health Sciences Education Generator**
One diesel fired emergency generator rated at up to 400 kW. Located in building 575.
- II.A.36 **Olympic Cauldron**
This is a seldom used ornamental monument from the Salt Lake 2002 Olympics (listed for identification purposes only).
- II.A.37 **University Hospital Ethylene Oxide Sterilizer**
Two small sterilization units using less than 1 ton of ethylene oxide a year (each). Units must comply with the emission standards of 40 CFR 63 Subpart WWWW (National Emission Standards for Hospital Ethylene Oxide Sterilizers) no later than December 29, 2008.
- II.A.38 **Building 587 Incinerator**
Incinerator for the combustion of pathological waste, low level radioactive waste, or chemotherapeutic waste.
- II.A.39 **Building 587 NSPS Natural Gas Boilers**
Two natural gas fired boilers with heat input ratings of 13.501 MMBtu, each. Subject to NSPS, 40 CFR, Part 60, Subpart Dc. Located in Building 587.
- II.A.40 **Fume Hoods**
Fume hoods located in the Art Department and in various labs throughout the campus. (listed for identification purposes only).
- II.A.41 **Small Fuel Storage Tanks**
Various fuel tanks located throughout the campus; each tank has a storage capacity of 10,000 gallons or less. No unit-specific applicable requirements (listed for identification purposes only).

- II.A.42 **Underground Fuel Storage Tanks**
Located at University Hospital. Two Diesel tanks approximately 20,000 gallons each, one diesel tank approximately 30,000 gallons, and one jet fuel tank approximately 12,000 gallons (NSPS).
- II.A.43 **Bldgs 701 & 702 Medical Towers Generator**
One diesel fired emergency generator rated up to 150kW serving building 701 and 702
- II.A.44 **Building 12 - Sutton Building Emergency Generator**
One diesel fired emergency generator rated up to 670 bhp. Located at Building 12.
- II.A.45 **Bldg 853 -Health Profession Education Small Boiler**
One natural gas fired 8.369 MMBtu/hr boiler Located in building 853
- II.A.46 **Building 1 - Park Building Emergency Generator**
One diesel fired emergency generator rated up to 668 kW.
- II.A.47 **Building 350-Carpentry Shop**
One Carpentry Shop dust collector.
- II.A.48 **Diesel generators- 4223 bhp Combined**
Diesel emergency back-up generators larger than 600 bhp. They support buildings #62 (Warnock Engineering Building), #86 (Marriott Library), #179 (Eccles Broadcast Center), and #585 Komas in Research Park.
- II.A.49 **Diesel generators- 644 bhp Combined**
Diesel emergency generators smaller than 600 bhp. They support buildings #53 (University Student Union), #212 (Indoor/Outdoor Practice Field), and #585 Komas in Research Park.
- II.A.50 **Gasoline Fired Generators- 174 bhp Combined**
Gasoline fired emergency generators that support buildings #84 (Biology) and #588 (Nursing).

II.B

Requirements and Limitations

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated:

II.B.1

Conditions on permitted source (Source-wide).

II.B.1.a

Condition:

The permittee shall comply with the applicable requirements for servicing of motor vehicle air conditioners pursuant to 40 CFR 82, Subpart B - Servicing of Motor Vehicle Air Conditioners. [Authority granted under 40 CFR 82.30(b); condition originated in 40 CFR 82 Subpart B].

II.B.1.a.1

Monitoring:

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart B.

II.B.1.a.2

Recordkeeping:

All records required in 40 CFR 82, Subpart B shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.a.3

Reporting:

All reports required in 40 CFR 82, Subpart B shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.b

Condition:

The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction. [Authority granted under 40 CFR 82.150(b); condition originated in 40 CFR 82 Subpart F].

II.B.1.b.1

Monitoring:

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F.

II.B.1.b.2

Recordkeeping:

All records required in 40 CFR 82, Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.b.3

Reporting:

All reports required in 40 CFR 82, Subpart F shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

- II.B.1.c Condition:**
- At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected emission unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Authority granted under R307-401-8(2) and 40 CFR 60.11(d); condition originated in R307-401-8(2) and 40 CFR 60.11(d)].
- II.B.1.c.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.1.c.2 Recordkeeping:**
- Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.1.c.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.1.d Condition:**
- The permittee shall burn low sulfur #2 diesel/fuel oil or better in all equipment permitted for diesel/fuel oil combustion. [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN0103540016-07, DAQE-AN0354012-06].
- II.B.1.d.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.1.d.2 Recordkeeping:**
- Fuel receipts shall be maintained to demonstrate usage of the following low-sulfur fuels:
- Grade Low Sulfur No. 1 Diesel, and
 - Grade Low Sulfur No. 2 Diesel.
- II.B.1.d.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.1.e Condition:**
- Unless stated otherwise in this permit, emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a)[BACT]; condition originated in DAQE-AN0103540016-07 and DAQE-AN0354012-06.] .

- II.B.1.e.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.1.e.2 **Recordkeeping:**
- Records shall be maintained for each generator including: dates of use, reason for use (maintenance, emergency, other), and the duration in the hours of the generator usage.
- II.B.1.e.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2

Conditions on Misc. Parts Washers (subject to R307-335-2).

II.B.2.a **Condition:**

The permittee shall ensure that the following conditions are met:

(1) Each solvent degreaser is equipped with a cover which shall remain closed except during actual loading, unloading or handling of parts in cleaner. The cover shall be designed so that it can be easily operated with one hand if:

- (a) the volatility of the solvent is greater than 2 kPa (15 mm Hg or 0.3 psi) measured at 38 degrees C (100 degrees F),
- (b) the solvent is agitated, or
- (c) the solvent is heated.

(2) An internal draining rack for cleaned parts shall be installed on which parts shall be drained until all dripping ceases. If the volatility of the solvent is greater than 4.3 kPa (32 mm Hg at 38 degrees C (100 degrees F)), the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Waste or used solvent shall be stored in covered containers. Waste solvents or waste materials which contain solvents shall be disposed of by recycling, reclaiming, by incineration in an incinerator approved to process hazardous materials, or by an alternate means approved by the executive secretary.

(4) Tanks, containers and all associated equipment shall be maintained in good operating condition and leaks shall be repaired immediately or the degreaser shall be shutdown.

(5) Written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment shall be permanently posted in an accessible and conspicuous location near the equipment.

(6) If the solvent volatility is greater than 4.3 kPa (33 mm Hg or 0.6 psi) measured at 38 degrees C (100 degrees F), or if solvent is heated above 50 degrees C (120 degrees F), then one of the following control devices shall be used:

- (a) freeboard that gives a freeboard ratio greater than 0.7;

(b) water cover if the solvent is insoluble in and heavier than water;

(c) other systems of equivalent control, such as a refrigerated chiller or carbon absorption.

(7) If used, the solvent spray shall be a solid fluid stream at a pressure which does not cause excessive splashing and may not be a fine, atomized or shower type spray. [Authority granted under R307-335-4; condition originated in R307-335-4].

II.B.2.a.1 **Monitoring:**

A visual observation shall be conducted monthly for all equipment and applicable work practices.

II.B.2.a.2 **Recordkeeping:**

Results of monthly inspections and the volatility of the solvent(s) being used shall be recorded and maintained as described in Provision I.S.1 of this permit.

II.B.2.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3

Conditions on High Temperature Water Plant pre NSPS Boilers.

II.B.3.a **Condition:**

The following consumption limits shall not be exceeded:

A. 698 MM SCF of natural gas per rolling 12-month period for Building 303 Boilers 3-5 before the cogeneration unit becomes operational.

B. 25 MM SCF per rolling 12-month period for Building 303 Boilers 3-5 after the Cogeneration Unit becomes operational.

C. 200 MM SCF of natural gas per rolling 12-month period for the University Hospital Boilers, and Miscellaneous Equipment (including two 13.501 MMBtu/hr boilers in Building 587, one 8.37 MMBtu/hr boiler in Building 853, and 8.165 MMBtu/hr boiler in Building 523 and does not include cogeneration unit).

[Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.3.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

- II.B.3.a.2 **Recordkeeping:**
- Fuel consumption shall be determined based on a 12-month rolling total calculated by 20th day of each month using the previous 12 months data. Monthly natural gas consumption for Boilers 3-5 shall be determined using gas meters installed on each boiler. Monthly natural gas consumption for other boilers and generators shall be determined using monthly billings.
- II.B.3.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.3.b **Condition:**
- Prior to the time that the Cogeneration Unit becomes operational, emissions of NO_x from each of Boilers 3-5 shall not exceed 25.0 lb/hr and 187 ppmdv (3% O₂ dry).
- [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].
- II.B.3.b.1 **Monitoring:**
- Boilers 3-5 shall be tested as follows:
- A. Stack testing frequency: at least every 3 years based on the date of the last stack test.
 - B. Sample location: 40 CFR 60, Appendix A, Method 1.
 - C. Volumetric flow rate: 40 CFR 60, Appendix A, Method 2.
 - D. Stack testing methods: NO_x: 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D or 7E.
 - E. Calculations: To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.
 - F. Heat input capacity during testing: The heat input capacity during testing shall be no less than 90% of the maximum heat input capacity achieved in the previous three (3) years.
- II.B.3.b.2 **Recordkeeping:**
- Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.3.b.3

Reporting:

Notification: At least 30 days prior to conducting stack testing, the permittee shall notify the Executive Secretary of the date, time and place of such testing. A source test protocol shall be submitted along with the testing notification sent to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to testing. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary. The pretest conference shall include representation from the permittee, the tester, and the Executive Secretary.

Sample location: The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit. .

II.B.3.c

Condition:

Visible emissions from boilers 3-5 shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.3.c.1

Monitoring:

Natural gas usage shall be verified in lieu of monitoring via visible emissions observations.

II.B.3.c.2

Recordkeeping:

Records of fuel usage shall be maintained to document periods during which natural gas has been burned.

II.B.3.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4

Conditions on High Temperature Water Plant Cogeneration Unit.

II.B.4.a

Condition:

Natural gas consumption by the duct burner shall not exceed 281 MM SCF per rolling 12-month period.[Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.4.a.1

Monitoring:

Fuel consumption shall be determined based on a 12-month rolling total calculated by 20th day of each month using the previous 12 months data. Monthly natural gas consumption for the duct burner shall be determined using gas meters installed on the duct burner natural gas supply gas line.

- II.B.4.a.2 **Recordkeeping:**
- Records of fuel usage shall be maintained as described in Provision I.S.1 of this permit.
- II.B.4.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.4.b **Condition:**
- Emissions from the Natural gas turbine and the WHRU duct burner shall not exceed the following:
- A. Natural gas turbine only: NO_x 2.65 lb/hr and 9 ppm_{dv} (15% O₂ dry) per 3-test run average.
 - B. Natural gas turbine only: CO 4.48 lb/hr and 25 ppm_{dv} (15% O₂ dry) per 3-test run average.
 - C. Natural gas turbine and WHRU duct burner: NO_x 8.97 lb/hr and 15 ppm_{dv} (15% O₂ dry) per 3-test run average.
 - D. Natural gas turbine and WHRU duct burner: CO 10.84 lb/hr and 30 ppm_{dv} (15% O₂ dry) per 3-test run average.
- [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].
- II.B.4.b.1 **Monitoring:**
- A. Initial compliance testing for natural gas turbine, and initial compliance testing natural gas turbine and duct burner are required. The initial test date shall be performed within 60 days after achieving the maximum heat input capacity production rate at which the affected facility will be operated and in no case later than 180 days after the initial start up of a new emission source.
 - B. Stack testing frequency for gas turbine alone and for gas turbine and WHRU duct burner combined: at least every year based on the date of the last stack test. The Executive Secretary may require testing at any time.
 - C. Sample location: 40 CFR 60, Appendix A, Method 1.
 - D. Volumetric flow rate: 40 CFR 60, Appendix A, Method 2.
 - E. Stack testing methods for Nitrogen Oxides (NO_x): 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D or 7E.
 - F. Stack testing methods for carbon monoxide (CO): 40 CFR 60, Appendix A, Method 10, or other testing methods approved by the Executive Secretary
 - G. Calculations: To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation..

II.B.4.b.2

Recordkeeping:

For testing/monitoring requirements, the source shall record the following information:

- 1) The date, place as defined in this permit, and time of sampling or measurement.
- 2) The date analyses were performed.
- 3) The company or entity that performed the analyses.
- 4) The analytical techniques or methods used.
- 5) The results of such analyses.
- 6) The operating conditions as existing at the time of sampling or measurement..

II.B.4.b.3

Reporting:

Notification: At least 30 days prior to conducting stack testing, the permittee shall notify the Executive Secretary of the date, time and place of such testing. A source test protocol shall be submitted along with the testing notification sent to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to testing. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary. The pretest conference shall include representation from the permittee, the tester, and the Executive Secretary.

Sample location: The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit..

II.B.4.c

Condition:

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.4.c.1

Monitoring:

Recordkeeping shall serve as monitoring.

II.B.4.c.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.4.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.d **Condition:**

The turbine and duct burner shall burn natural gas which contains 20 grains of sulfur or less per 100 standard cubic feet and has potential sulfur emissions of less than less than 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input.

[Authority granted under 40 CFR Part 60 Subpart KKKK; condition originated in 40 CFR Part 60.4330(a)(2) and 60.4365(a)].

II.B.4.d.1 **Monitoring:**

Recordkeeping for this permit condition shall serve as monitoring.

II.B.4.d.2 **Recordkeeping:**

The permittee shall demonstrate compliance by maintaining records specifying the maximum total sulfur content for natural gas combusted. Acceptable records include: valid contracts, tariff sheets, or transportation contracts for the fuel. [40 CFR 60.4365(a)].

II.B.4.d.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.e **Condition:**

For the turbine and duct burner, the permittee shall comply with all applicable requirements of 40 CFR 60, Subpart A: General Provisions. [Authority granted under 40 CFR Part 60 Subpart A ; condition originated in 40 CFR Part 60 Subpart A].

II.B.4.e.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.4.e.2 **Recordkeeping:**

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.4.e.3 **Reporting:**

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.5 **Conditions on University Hospital Boilers.**

II.B.5.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN010203540016-07].

II.B.5.a.1

Monitoring:

While burning natural gas, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

An opacity observation shall be made during each semi-annual period* when fuel oil is burned. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

* Semi-annual periods are defined as the periods from January 1st through June 30 th, and July 1st through December 31st, of each year. .

II.B.5.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage. For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.5.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.5.b

Condition:

Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings, boiler systems and natural gas pipe line maintenance and repair, and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall not exceed 1 percent of the previous year's annual Btu consumption. In addition, maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.5.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.5.b.2

Recordkeeping:

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that fuel oil was fired, the amount of fuel oil consumed, and the reason for firing fuel oil. Records documenting the BTU content of all fuel fired annually and BTU content of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed 1 percent of the previous year's annual BTU consumption as follows: Annual boiler maintenance firings as a percentage of annual Btu consumption = (Total Btu's of fuel fired for annual maintenance/Total annual Btu's of all fuel fired in the previous year)* 100 .

II.B.5.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.6 **Conditions on Miscellaneous Natural Gas Fired Generators.**

II.B.6.a **Condition:**

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE- AN0103540016-07].

II.B.6.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.6.a.2 **Recordkeeping:**

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.6.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.7 **Conditions on Diesel-Generators.**

II.B.7.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.7.a.1 **Monitoring:**

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.7.a.2 **Recordkeeping:**

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

- II.B.7.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.8
- Conditions on Building 302 NSPS Boilers.**
- II.B.8.a **Condition:**
- Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].
- II.B.8.a.1 **Monitoring:**
- While burning natural gas, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations. An opacity observation shall be made during each semi-annual period* when fuel oil is burned. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.
- * Semi-annual periods are defined as the periods from January 1st through June 30th, and July 1st through December 31 st, of each year. .
- II.B.8.a.2 **Recordkeeping:**
- Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage. For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.
- II.B.8.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.8.b **Condition:**
- Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings, boiler system and natural gas pipe line maintenance, and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee.
- Maintenance firings shall not exceed 1 percent of the total annual Btu production. In addition, maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].
- II.B.8.b.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.

- II.B.8.b.2 Recordkeeping:**
- Records documenting fuel usage shall be kept showing dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that fuel oil was fired, the amount of fuel oil consumed, and the reason for firing fuel oil. Records documenting the BTU content of all fuel fired annually and BTU content of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed 1 percent of the previous year's annual BTU consumption as follows:
- Annual boiler maintenance firings as a percentage of annual BTU consumption = (Total BTU content of fuel fired for annual maintenance/annual BTU requirement)* 100.
- II.B.8.b.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.8.c Condition:**
- The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit (daily requirement has been revised to monthly frequency per approval letter from EPA Region VIII dated November 25, 2003). [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].
- II.B.8.c.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.8.c.2 Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.8.c.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.8.d Condition:**
- The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in 40 CFR 60 (Subpart A)] .
- II.B.8.d.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.8.d.2 Recordkeeping:**
- All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.8.d.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.8.e

Condition:

The following limits shall not be exceeded: 858 MM Scf of natural gas per rolling 12-month period for all boilers.[Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN0103540016-07] .

II.B.8.e.1

Monitoring:

Fuel consumption shall be determined based on a 12-month rolling total calculated by 20th day of each month using the previous 12 months data. Monthly natural gas consumption shall be determined using gas meters installed on each boiler.

II.B.8.e.2

Recordkeeping:

Records of consumption shall be kept on a monthly basis (per approval letter from EPA Region 8, dated November 25, 2003). Records documenting boiler maintenance shall be kept and shall include: date of boiler maintenance, duration in hours, and fuel type used.

II.B.8.e.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.9

Conditions on Building 302 Diesel Emergency Generator.

II.B.9.a

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07] .

II.B.9.a.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.9.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.9.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.10

Conditions on Student Housing-and Rice-Eccles Stadium Natural Gas-fired Equipment-Buildings 32 & 33.

II.B.10.a **Condition:**

Natural gas usage shall be no greater than 165 MM SCF per 12 month rolling period. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.10.a.1 **Monitoring:**

Based on the first day of each month, a new 12-month total shall be calculated using data from the previous twelve months. Monthly calculations shall be made no later than 20 days after the end of each calendar month. For the Rice Stadium NSPS boiler, consumption shall be determined monthly (per approval letter from EPA Region 8, dated November 25, 2003) using a gas meter. For all other natural gas fired equipment, consumption shall be determined using monthly billings.

II.B.10.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.10.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.11

Conditions on Rice Stadium (Bldg 32) West NSPS Boiler.

II.B.11.a **Condition:**

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.11.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.11.a.2 **Recordkeeping:**

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.11.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.11.b **Condition:**

The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN0103540016-07].

II.B.11.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.11.b.2

Recordkeeping:

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.11.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.11.c

Condition:

The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit (daily requirement has been revised to monthly frequency per approval letter from EPA Region VIII dated November 25, 2003). [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].

II.B.11.c.1

Monitoring:

Fuel consumption for each affected emission unit shall be determined by a fuel meter, or other method approved by the Executive Secretary.

II.B.11.c.2

Recordkeeping:

Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.

II.B.11.c.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.12

Rice-Eccles Stadium (Building 33 Clark Football Center) Small Boiler.

II.B.12.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.12.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.12.a.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.12.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.13

Conditions on Rice Eccles Stadium (Building 32) Emergency Diesel Generator.

II.B.13.a

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN010354016-07].

II.B.13.a.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.13.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.13.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.14

Conditions on Student Housing Emergency Diesel Generators.

II.B.14.a

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.14.a.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.14.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.14.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.15

Conditions on Paint Booth and Print Plant Combined.

II.B.15.a **Condition:**

Combined emissions of VOC from the Paint Booth and Print Plant shall not exceed 5.0 tons per rolling 12-month period. Combined HAP emissions from the Paint Booth and Print Plant shall not exceed 1.0 tons per rolling 12-month period. [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN0103540016-07].

II.B.15.a.1 **Monitoring:**

Emissions shall be calculated on a rolling 12-month total. Based on the first day of each month, a new 12-month total shall be calculated using data from the previous twelve months. Monthly calculations shall be made no later than 20 days after the end of each calendar month.

II.B.15.a.2 **Recordkeeping:**

VOC and HAP emissions shall be determined by maintaining a record of VOC and HAP emitting materials used each month. The records shall include the following data for each material used:

1. Name of the VOC or HAP emitting material, such as; paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc.
2. Density of each material used (pounds per gallon).
3. Percent by weight of VOC and HAP in each material used.
4. Gallons of each VOC and HAP emitting material used each month.
5. The amount of VOC and individual HAP emitted monthly by each material used, calculated by the following procedure:
$$\text{VOC} = \frac{(\% \text{ VOC by Weight})}{(100)} \times \frac{(\text{Density lb})}{(\text{gal})} \times (\text{Gal Consumed}) \times \frac{(1 \text{ ton})}{(2,000 \text{ lb})}$$
$$\text{HAP} = \frac{(\% \text{ HAP by Weight})}{(100)} \times \frac{(\text{Density lb})}{(\text{gal})} \times (\text{Gal Consumed}) \times \frac{(1 \text{ ton})}{(2,000 \text{ lb})}$$
6. The total amount of VOC and HAP emitted monthly from all materials used.
7. The amount of VOC and HAP reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above, to provide the monthly total VOC and HAP emissions.

II.B.15.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.16

Conditions on Print Plant.

II.B.16.a **Condition:**

Solvent wiping cloths shall be kept in covered containers when not in use. [Authority granted under R307-340-2(2)(b); condition originated in DAQE-AN0103540016-07].

II.B.16.a.1 **Monitoring:**

Daily inspections shall be conducted to ensure that solvent laden rags are stored in closed containers when not in use.

II.B.16.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.16.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.16.b **Condition:**

Solvents containing volatile organic compounds (VOC) shall be kept in covered containers when not in use. [Authority granted under R307-325-1(2); condition originated in DAQE-AN0103540016-07].

II.B.16.b.1 **Monitoring:**

Daily inspections shall be conducted to ensure that VOC containing solvents are stored in closed containers when not in use.

II.B.16.b.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.16.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.17

Conditions on Paint Booth.

II.B.17.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.17.a.1

Monitoring:

In lieu of monitoring via visible emissions observations, the spray booth particulate capture system shall be inspected before each use to verify that it is functioning properly. Inspections shall consist of the following observations:

- (A) Inspection for holes in the particulate filters.
- (B) Inspection of the particulate filters to determine proper installation within the support rack.
- (C) Inspection of the exhaust fan to ensure that it is operating.

II.B.17.a.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.17.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.18

Conditions on Building 555 Huntsman Cancer Institute.

II.B.18.a

Condition:

Combined usage of natural gas by the boilers shall not exceed 212.10 MM SCF per rolling 12-month period. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.18.a.1

Monitoring:

Fuel consumption shall be determined on a rolling 12-month total with a new total calculated by the 20th day of each month using data from the previous 12 months. Usage shall be determined from monthly gas bills.

II.B.18.a.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.18.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.19

Conditions on Building 555 - Huntsman Cancer Institute - NSPS Boilers.

II.B.19.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.19.a.1

Monitoring:

During periods when natural gas is being burned, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations. If a boiler is operated on fuel oil for longer than 12 consecutive hours, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, by a certified visible emissions observer (VEO). If the boiler continues to operate on fuel oil for consecutive days following the initial observation, an opacity determination shall be performed on a daily basis. .

II.B.19.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9. .

II.B.19.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.19.b

Condition:

The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN0103540016-07].

II.B.19.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.19.b.2

Recordkeeping:

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.19.b.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.19.c

Condition:

The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit (daily requirement has been revised to monthly frequency per approval letter from EPA Region VIII dated November 25, 2003). [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].

II.B.19.c.1

Monitoring:

Fuel consumption for each affected emission unit shall be determined by a fuel meter, or other method approved by the Executive Secretary.

II.B.19.c.2

Recordkeeping:

Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.

II.B.19.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.19.d

Condition:

Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall not exceed 1 percent of the previous year's Btu production. In addition, maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.19.d.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.19.d.2

Recordkeeping:

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that fuel oil was fired, the amount of fuel oil consumed, and the reason for firing fuel oil. Records documenting the BTU content of all fuel fired annually and BTU content of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed 1 percent of previous year's Btu production as follows:

Annual boiler maintenance firings as a percentage of annual BTU requirement = (Total Btu's of fuel fired for annual maintenance/Total annual Btu's of all fuel fired in the previous year)* 100 .

II.B.19.d.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.20

Conditions on Building 555 - Huntsman Cancer Institute - Small Boilers.

II.B.20.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.20.a.1

Monitoring:

During periods when natural gas is being burned, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations. If a boiler is operated on fuel oil for longer than 12 consecutive hours, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, by a certified visible emissions observer (VEO). If the boiler continues to operate on fuel oil for consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.20.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage. For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.20.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.20.b

Condition:

Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall not exceed one percent of the previous year's Btu production. In addition, maintenance firings shall be scheduled only between March 1st and October 31st. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.20.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.20.b.2

Recordkeeping:

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that fuel oil was fired, the amount of fuel oil consumed, and the reason for firing fuel oil. Records documenting the total Btu's of all fuel fired annually and total Btu's of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed one percent of the previous years Btu consumption as follows:

Annual boiler maintenance firings as a percentage of annual Btu consumption = (Total Btu's of fuel fired for annual maintenance/Total Btu's of all fuel fired in the previous year)* 100.

II.B.20.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.21

Conditions on Building 555 - Huntsman Cancer Institute Diesel Emergency Generators.

II.B.21.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.21.a.1 **Monitoring:**

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.21.a.2 **Recordkeeping:**

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.21.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.22

Building 556 Conditions on Huntsman Cancer Hospital –Small Boilers 1-2.

II.B.22.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.22.a.1 **Monitoring:**

During periods when natural gas is being burned, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations. If a boiler is operated on fuel oil for longer than 12 consecutive hours, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, by a certified visible emissions observer (VEO). If the boiler continues to operate on fuel oil for consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.22.a.2 **Recordkeeping:**

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage. For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.22.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.22.b **Condition:**

Fuel usage for boilers 1-2 shall be limited to natural gas with the exception of fuel oil combusted only during maintenance firings, boiler systems and natural gas pipe lines maintenance, and repair and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall only be scheduled between March 1st and October 31st. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.22.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.22.b.2 **Recordkeeping:**

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, grade of fuel oil fired, the duration in hours that each fuel type was fired, and the reason for each fuel usage (e.g.: “#2 fuel oil used 12/25/03 for 30 minutes during routine maintenance firing”).

II.B.22.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.23

Building 556 Conditions on Huntsman Cancer Hospital-Generators.

II.B.23.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.23.a.1 **Monitoring:**

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.23.a.2 **Recordkeeping:**

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.23.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.24

Building 565- Emma -Eccles-Jones Medical Research Center - NSPS Boiler.

II.B.24.a **Condition:**

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.24.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.24.a.2 **Recordkeeping:**

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.24.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.24.b **Condition:**

This boiler shall only be used during maintenance firing and during periods when high temperature water from Building 302 is unavailable. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.24.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.24.b.2 **Recordkeeping:**

Records shall be kept documenting the following information for each usage: date, duration, and reason for use.

II.B.24.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.24.c **Condition:**

The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN0103540016-07].

II.B.24.c.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.24.c.2

Recordkeeping:

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.24.c.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.24.d

Condition:

The permittee shall keep daily records of the amounts of each fuel combusted. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].

II.B.24.d.1

Monitoring:

Fuel consumption for each affected emission unit shall be determined by a fuel meter, or other method approved by the Executive Secretary.

II.B.24.d.2

Recordkeeping:

Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.

II.B.24.d.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.25

Building 565- Emma -Eccles-Jones Medical Research Center Diesel Generator.

II.B.25.a

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.25.a.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.25.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.25.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.26

Building 550 - Clinical Neurosciences Center Emergency Diesel Generator.

II.B.26.a

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.26.a.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.26.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.26.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.27

Conditions on John A. Moran Eye Center Emergency Generators.

II.B.27.a

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.27.a.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.27.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.27.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.28

Conditions on John A. Moran Eye Center Small Natural Gas Fired Boiler.

II.B.28.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.28.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.28.a.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned. [R307-415-6b]

II.B.28.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.29

Building 575 - Health Sciences Education Building- Emergency Diesel Generator.

II.B.29.a

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.29.a.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.29.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.29.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.30

Conditions on Incinerator.

II.B.30.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.30.a.1 **Monitoring:**

Opacity observations of emissions shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.30.a.2 **Recordkeeping:**

Results of observations and all data required by 40 CFR, Part 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.30.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.30.b **Condition:**

The permittee shall verify exemption from R307-222 (Emissions Standards: Existing Incinerators for Hospital, Medical, Infectious Wastes) by keeping readily accessible records demonstrating that only pathological, low-level radioactive, and chemotherapeutic wastes, or combination of those wastes, are being incinerated. [Authority granted under R307-222-1(2)(a)(ii); condition originated in R307-222-1(2)(a)(ii)].

II.B.30.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.30.b.2 **Recordkeeping:**

Records shall be maintained as described in I.S.1 of this permit and shall include dates that the incinerator is used, and the type of waste burned.

II.B.30.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.31

Building 587 NSPS Natural Gas Fired Boilers.

II.B.31.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

- II.B.31.a.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring. .
- II.B.31.a.2 **Recordkeeping:**
- In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.
- II.B.31.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.31.b **Condition:**
- The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN0103540016-07].
- II.B.31.b.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.31.b.2 **Recordkeeping:**
- All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.
- II.B.31.b.3 **Reporting:**
- The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.
- II.B.31.c **Condition:**
- The permittee shall keep daily records of the amounts of each fuel combusted each day. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].
- II.B.31.c.1 **Monitoring:**
- Fuel consumption for each affected emission unit shall be determined by a fuel meter, or other method approved by the Executive Secretary.
- II.B.31.c.2 **Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.31.c.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.32

Conditions on Fume Hoods.

II.B.32.a **Condition:**

A list of fume hoods located throughout the campus shall be maintained. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.32.a.1 **Monitoring:**

The list of fume hoods shall be reviewed every six months and updated as necessary.

II.B.32.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.32.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.33

Conditions on Bldgs 701 & 702 Medical Towers Generator.

II.B.33.a **Condition:**

Visible emissions from the Emergency Diesel Generators shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.33.a.1 **Monitoring:**

Opacity observations shall be conducted annually for each generator in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.33.a.2 **Recordkeeping:**

A log of opacity determinations shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.33.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.34

Building 12 - Sutton Building Emergency Generator.

II.B.34.a **Condition:**

Visible emissions from the Emergency Diesel Generators shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07] .

II.B.34.a.1

Monitoring:

Opacity observations shall be conducted annually for each generator in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.34.a.2

Recordkeeping:

A log of opacity determinations shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.34.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.35

Conditions on Bldg 853 -Health Profession Education Small Boiler.

II.B.35.a

Condition:

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.35.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.35.a.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.35.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.36

Conditions on Building 1 - Park Building Emergency Generator.

II.B.36.a

Condition:

Visible emissions from the Emergency Diesel Generators shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.36.a.1

Monitoring:

Opacity observations shall be conducted annually for each generator in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.36.a.2

Recordkeeping:

A log of opacity determinations shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.36.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.37

Conditions on Building 350- Carpentry Shop Dust Collector.

II.B.37.a

Condition:

Visible emissions shall be no greater than 10 percent opacity except for operation not exceeding 3 minutes in any hour.[Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-06].

II.B.37.a.1

Monitoring:

Opacity observations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.37.a.2

Recordkeeping:

A log of opacity determinations shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.37.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.37.b

Condition:

Operation of the carpentry shop dust collector shall not exceed 1043 hours per rolling 12-month period [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0103540016-07].

II.B.37.b.1

Monitoring:

Hours of operation shall be determined based on a 12-month rolling total calculated by 20th day of each month using the previous 12 months data.

II.B.37.b.2

Recordkeeping:

Monthly records documenting dust collector usage shall be kept in a log maintained by the Carpentry Shop Supervisor. Records shall show the date and the duration in hours of dust collector usage.

II.B.37.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.38

Conditions on Diesel generators- 4223 bhp Combined.

II.B.38.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06].

II.B.38.a.1 **Monitoring:**

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.38.a.2 **Recordkeeping:**

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.38.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.38.b **Condition:**

Start-up maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06].

II.B.38.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.38.b.2 **Recordkeeping:**

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.38.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.38.c **Condition:**

The Executive Secretary shall be notified in writing when the installation of the referenced equipment has been completed and is operational, as an initial compliance inspection is required. If the construction and/or installation has not been completed by January 12, 2008, the Executive Secretary shall be notified

in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke construction approval in accordance with R307-401-18. [Authority granted under R307-401-18; condition originated in DAQE-AN0354012-06].

II.B.38.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.38.c.2

Recordkeeping:

The permittee shall maintain a copy of the notification required by this permit condition in accordance with Provision I.S.1 of this permit.

II.B.38.c.3

Reporting:

To insure proper credit for the notification requirement of the above condition, correspondence should be sent to the Executive Secretary, attn: Compliance Section. Reports and notifications shall be submitted in accordance with Section I of this permit.

II.B.39

Conditions on Diesel generators- 644 bhp Combined.

II.B.39.a

Condition:

Visible emissions shall be no greater than 20 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06].

II.B.39.a.1

Monitoring:

If an affected emission unit is operated during a calendar year, an opacity observation of the emission unit shall be performed in the calendar year that the emission unit was operated. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.39.a.2

Recordkeeping:

Results of observations and all data required by 40 CFR, Part 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit..

II.B.39.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.39.b

Condition:

Start-up maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric

power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06].

II.B.39.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.39.b.2

Recordkeeping:

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.39.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.39.c

Condition:

The Executive Secretary shall be notified in writing when the installation of the referenced equipment has been completed and is operational, as an initial compliance inspection is required. If the construction and/or installation has not been completed by January 12, 2008, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke construction approval in accordance with R307-401-18. [Authority granted under R307-401-18; condition originated in DAQE-AN0354012-06] .

II.B.39.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.39.c.2

Recordkeeping:

The permittee shall maintain a copy of the notification required by this permit condition in accordance with Provision I.S.1 of this permit.

II.B.39.c.3

Reporting:

To insure proper credit for the notification requirement of the above condition, correspondence should be sent to the Executive Secretary, attn: Compliance Section. Reports and notifications shall be submitted in accordance with Section I of this permit.

II.B.40

Conditions on Gasoline Fired Generators- 174 bhp Combined.

II.B.40.a

Condition:

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06].

II.B.40.a.1

Monitoring:

If an affected emission unit is operated during a calendar year, an opacity observation of the emission unit shall be performed in the calendar year that the emission unit was operated. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.40.a.2

Recordkeeping:

Results of observations and all data required by 40 CFR, Part 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.40.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.40.b

Condition:

Start-up maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06].

II.B.40.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.40.b.2

Recordkeeping:

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.40.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.40.c

Condition:

The Executive Secretary shall be notified in writing when the installation of the referenced equipment has been completed and is operational, as an initial compliance inspection is required. If the construction and/or installation has not been completed by January 12, 2008, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke construction approval in accordance with R307-401-18. [Authority granted under R307-401-18; condition originated in DAQE-AN0354012-06].

II.B.40.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.40.c.2

Recordkeeping:

The permittee shall maintain a copy of the notification required by this permit condition in accordance with Provision I.S.1 of this permit.

II.B.40.c.3

Reporting:

To insure proper credit for the notification requirement of the above condition, correspondence should be sent to the Executive Secretary, attn: Compliance Section. Reports and notifications shall be submitted in accordance with Section I of this permit.

II.C

Emissions Trading

(R307-415-6a(10))

Not applicable to this source.

II.D

Alternative Operating Scenarios.

(R307-415-6a(9))

Not applicable to this source.

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

Incorporates	DAQE-AN0103540016-07 dated November 8, 2007
Incorporates	DAQE-AN0354012-06 dated July 12, 2006

1. Comment on an item originating in AO (DAQE-AN0354010-04) regarding Permitted source

Modifications made 1/10/05:

The following changes were made thru the issuance of AO DAQE-AN0354010-04 and are included in this Title V Permit:

- 1) DAQE-081-02: AO condition #11 required that the boilers use natural gas only. The boilers are natural gas by design. In the new consolidated AO, the natural gas design feature is included in the emissions unit description and is no longer listed as a distinct permit condition.
- 2) DAQE-081-02: AO condition #12 required generators to use 0.5 percent sulfur fuels or less in the generators. That condition was subsumed by a more stringent limitation in AO condition #11 which required #1 or #2 fuel oils. Since #1 and #2 fuel oils contain less than 0.5 percent sulfur by weight, AO condition #12 was therefore unnecessary and was not carried forward into this permit.
- 3) DAQE-265-01: AO condition #11 required the generators to use 0.5 percent sulfur fuels or less in the generators. That condition was subsumed by a more stringent limitation in AO condition #10 which required #1 or #2 fuel oils. Since #1 and #2 fuel oils contain less than 0.5 percent sulfur by weight, AO condition #11 was therefore unnecessary and was not be carried forward into the new permit.
- 4) DAQE-264-01: AO condition #10 required that the boilers and comfort heating equipment use natural gas only. The boilers and comfort heating equipment are natural gas by design. In the new consolidated AO, the natural gas design feature was included in the emissions unit description and was not listed as a distinct permit condition.
- 5) DAQE-264-01: AO condition #4 incorrectly listed building 822 as the location for a 208 kW diesel generator. The building number was corrected to 821.
- 6) DAQE-128-01: AO condition #13 included the requirement that natural gas be used as primary fuel. UH Boilers (AO condition #6.A(6)-(8)), and boilers included in Misc. Equipment (AO condition #6.B.), can burn only natural gas by design. Hence, the natural gas design feature was listed in the new permit as part of the emissions unit description. A separate permit requirement for natural gas as primary fuel was retained for the LC Boilers (AO condition #6.A(1)-(5))because they have dual fuel capability.
- 7) DAQE-128-01: AO condition #6 listed four portable emergency diesel fired generators that have been removed and are no longer on site. Hence, these units are not included in the consolidated AO. The emergency diesel generator-building list from AO condition #6 was also updated to change building 240 to building 213. Buildings 3, 4, 19, 35, 82, 697, 801, and 853 were also be added.

- 8) DAQE-712-99: AO condition #4 required annual training for all employees operating equipment. The Title V permit for the University of Utah includes record keeping and reporting conditions that sufficiently demonstrate whether or not equipment is being operated properly. For that reason, the annual employee training program was unnecessary and was not carried forth into the new AO.
- 9) DAQE-712-99: AO condition #9 required the paint booth to be equipped with particulate filters. In the new AO, that design requirement was included as part of the emissions unit description.
- 10) DAQE-962-96: AO conditions #6 and #7 established emissions limits and stack testing for the combustion laboratory. Those conditions were dropped because the emissions were not large enough to warrant periodic stack testing. Although SO₂ and NO_x emissions could be as high as 3.00 and 2.64 lbs/hr respectively, those emissions rates are representative of coal combustion which is limited to 960 hours/year for the kiln and 2500 hours/year for the U-furnace. Based on the calculated emissions in DAQE-962-96 for NO_x and SO₂ (1.02 and 1.05 tons per year respectively), and the fact that only the U-furnace remains, emissions are not large enough to warrant periodic stack testing. [Last updated February 12, 2008]
- 11) DAQE-962-96: AO condition #4 was not carried forward into the new AO. Condition #4 was from an older version of the AO boiler-plate comprised of general requirements. That particular training requirement is no longer generally applied to all sources receiving new approval orders. Training requirements are reserved for special cases when appropriate. For this particular case, the Combustion Lab, the training requirement was deemed unnecessary.
- 12) DAQE-962-96: AO condition #9E required daily record keeping of natural gas usage. That requirement was not carried over into the new AO because there is no daily limit for natural gas usage.
- 13) DAQE-0607-93: AO condition #5 was not carried forward into the new AO. Condition #5 required posting of the AO and employee training. That particular condition is from an older version of the AO boiler-plate comprised of general requirements and is no longer generally applied to all sources receiving new approval orders. Training requirements are reserved for special cases when appropriate. For this particular case, training for the fume hoods and posting of the AO is not deemed necessary as safe operation of the fume hoods is covered by OSHA and the Standard Operating Practices (SOPs) described in the University of Utah's "Chemical Hygiene Plan of the University of Utah" and "Safety and Health Manual".
- 14) DAQE-0607-93: AO condition #9 placed an opacity limit of 10% on laboratory Fume Hoods. The purpose of these hoods is for controlling fumes, not smoke. For that reason, an opacity limit on these hoods is not necessary and will not be included in the new AO.
- 15) Two NSPS boilers and an emergency generator were added to the Eccles Critical Care Pavilion.
- 16) The four boilers at the Huntsman Cancer Institute (Phase I) were retrofitted to burn both natural gas and diesel.
- 17) Two non-NSPS boilers and two emergency generators were added to the Huntsman Cancer Institute-Phase II.

- 18) One NSPS boiler and one emergency generator were added to the Emma Eccles Jones Medical Research Center.
 - 19) One 500 kW diesel emergency generator were added to the Moran Eye Center Phase I.
 - 20) An out of service boiler located at the Moran Eye Center Phase I, were listed for identification purposes only.
 - 21) Two emergency generators were added to the Moran Eye Center-Phase II.
 - 22) One emergency generator was added to the Health Sciences Education Building.
 - 23) Several insignificant emissions units were listed for identification purposes only.
 - 24) One Cauldron/ 2002-Winter-Olympics monument, was listed for identification purposes only.
 - 25) UH Boilers are designated as natural gas/diesel design boilers. [Comment last updated on 12/06/2004]
- [Last updated February 8, 2008]

2. Comment on an item originating in AO (DAQE-AN0354014-06) regarding Permitted source

Modifications made 10/26/06 :

The changes from the previous AO (DAQE-AN0354010-04) to the new AO (DAQE-AN0354014-06) include:

- (1) Replace two diesel fired emergency generators for the newly constructed John A. Moran Eye Center (formerly Moran Eye Center Phase II-Diesel Generators) rated at 300 kW and 700 kW with two diesel fired emergency generators rated up to 400 kW and 1250 kW bhp).
- (2) Increase the combined capacity for "Diesel-Generators" emissions unit description from 9,885 kW to 12,020 kW.
- (3) Add a new diesel fired emergency backup generator to "Diesel-Generators" The location is Building 85. The generator is rated up to 600 kW.
- (4) Revise building numbers for "Diesel-Generators" emissions unit description. Deleted buildings are: 3, 86, 179, and 801. Added buildings are: 85 and 526.
- (5) University Hospital diesel fired emergency backup generators upgraded. One 500 kW generator and one 1000 kW generator replaced with two 1100 kW generators. These generators are found in building 526 (under the "Diesel-Generators" emissions unit description.)
- (6) All references to the U-furnace are deleted because it has been removed from service and dismantled.
- (7) Eccles Critical Care Pavilion has been deleted from this permit because the boilers and generators were never installed.

(8) For the emissions unit "Underground Fuel Storage Tanks," Subpart Kb was removed as an applicable requirement since these tanks meet the size and vapor pressure requirements of 40 CFR 60.110b (b) and (c).

(9) "LC Boilers" renamed "Building 303 Boilers"

(10) Ratings for UH (University Hospital) Boilers changed: Two boilers changed from 9.88 MMBTU/hr to 10.5 MM Btu/hr (Building 521/525). One boiler changed from 9.83 MM Btu/hr to 13.5 MM Btu/hr (Building 526).

(11) "UC NSPS Boilers" renamed "Building 302 NSPS Boilers"

(12) UC Diesel Emergency Generator renamed Building 302 Diesel Emergency Generator.

(13) Fuel Storage Tanks (NSPS) name has been changed to "Underground Fuel Storage Tanks." NSPS requirement has been removed due to change in Federal Regulations.

(14) Change Moran Eye Center Phase I to Building 550.

(15) Change Moran Eye Center Phase II to Building 523. Change generators to 400 and 1250 kW.

(16) Change Health Sciences Education Building to Building 575.

(17) Change Emma-Eccles-Jones Medical Research Center to Building 565.

(18) Opacity limit for diesel generators has been revised from 10 percent to 20 percent.

(19) Natural gas equipment less than 5 MM Btu/hr at Huntsman Cancer Hospital Added to Misc Equipment.

(20) "New Student Housing Emergency Diesel Generators" renamed to "Student Housing Emergency Diesel Generators"

(21) Combustion Lab U-furnace deleted from permit.

(22) "Huntsman Cancer Institute (Phase I)" changed to "Building 555 Huntsman Cancer Institute".

(23) Huntsman Cancer Institute Phase II " changed to "Building 556 Huntsman Cancer Hospital."

(24) Add requirements for 40 CFR Part 82 Subparts B and F.

(25) Also a correction was made to the visible emissions monitoring requirement for "Diesel generators- 4223 bhp Combined." Monitoring changed from calendar year to annual per the original AO requirement. [Last updated February 8, 2008]

3. Comment on an item originating in AO (DAQE-AN0354016-07) regarding High Temperature Water Plant Cogeneration Unit.

Incorrect NSPS citation in Approval order: Condition 25 of AO AN0103540016-07 cites 40 CFR Part 60, Subpart Dc as an applicable requirement for the duct burner. However, that equipment is exempted per 40 CFR Part 60.40c(e) (units subject to Subpart KKKK are exempt from Dc). [Last updated February 12, 2008]

4. Comment on an item originating in AO (DAQE-AN0354016-07) regarding High Temperature Water Plant Cogeneration Unit.

NSPS Requirements from 40 CFR Part 60 Subpart KKK Subsumed:

-The NO_x emissions limit (25 ppm) from 40 CFR 60.4420 Table 1, has been subsumed by AO condition 22C which is more stringent (15 ppm) and has been included in this Title V permit..

-The initial performance testing requirement for NO_x given by 60.4400(a), and 60.8, is covered by AO condition 22.E. which is included in this Title V permit.

-The NO_x testing frequency from 40 CFR 60.4340(a) allows testing on a two year basis. That requirement has been subsumed by AO condition 22(E) which is included in this Title V permit and requires testing every year and is thus more stringent.

-The written report required by 40 CFR 60.4375(b) for annual NO_x performance tests is covered by AO condition 22.L. which is included in this Title V permit. [Last updated February 14, 2008]

5. Comment on an item originating in 40 CFR 63 Subpart WWWW regarding University Hospital Ethylene Oxide Sterilizers

These units must comply with the emission standards of 40 CFR 63 Subpart WWWW (National Emission Standards for Hospital Ethylene Oxide Sterilizers) no later than December 29, 2008.